

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference RLL-445WO	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/IB2004/003380	International filing date (day/month/year) 15/10/2004	(Earliest) Priority Date (day/month/year) 17/10/2003
Applicant RANBAXY LABORATORIES LIMITED		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 6 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☒ **Certain claims were found unsearchable** (See Box II).

3. ☐ **Unity of invention is lacking** (see Box III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

- a. the figure of the **drawings** to be published with the abstract is Figure No. _____

☐ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

- b. ☐ none of the figures is to be published with the abstract.

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INTERNATIONAL SEARCH REPORT

International Application No

CT/IB2004/003380

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C12N1/20 C12P17/18 A61K31/535 C12R1/465
 //(C12P17/18,C12R1:465)

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C12N C12P C12R

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, BIOSIS, CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 194 378 A (SALITURO ET AL) 16 March 1993 (1993-03-16) cited in the application	18-20
A	column 1, line 66 - column 5, line 24 column 7, line 57 - column 8, line 2 examples 1,2	1-3
X	US 5 116 756 A (DUMONT ET AL) 26 May 1992 (1992-05-26) cited in the application	18-20
A	claim 1	1-3
X	US 4 894 366 A (OKUHARA ET AL) 16 January 1990 (1990-01-16) cited in the application	18-20
A	column 8, line 58 - column 13, line 22 examples 1,2 claim 12	1-3
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

A document defining the general state of the art which is not considered to be of particular relevance

E earlier document but published on or after the international filing date

L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

Z document member of the same patent family

Date of the actual completion of the international search

14 April 2005

Date of mailing of the international search report

04/05/2005

Name and mailing address of the ISA

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van de Kamp, M

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 624 842 A (OKUHARA ET AL) 29 April 1997 (1997-04-29) cited in the application	18-20
A	claim 1	1-3
A	----- MOTAMEDI H ET AL: "The biosynthetic gene cluster for the macrolactone ring of the immunosuppressant FK506" EUROPEAN JOURNAL OF BIOCHEMISTRY, vol. 256, no. 3, 1998, pages 528-534, XP000906738 ISSN: 0014-2956 abstract page 528, right-hand column, line 16 - page 529, left-hand column, line 30 -----	
A	REYNOLDS K A ET AL: "Rapamycin, FK506, and ascomycin-related compounds" DRUGS AND THE PHARMACEUTICAL SCIENCES, vol. 82, no. 82, 1997, pages 497-520, XP000906777 ISSN: 0360-2583 the whole document -----	

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: —
because they relate to subject matter not required to be searched by this Authority, namely:

Although claims 18 and 19 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International Application No

Information on patent family members

CT/IB2004/003380

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5194378 A	16-03-1993	US 5116756 A CA 2059706 A1 EP 0497515 A1 JP 5130860 A JP 6091816 B	26-05-1992 29-07-1992 05-08-1992 28-05-1993 16-11-1994
US 5116756 A	26-05-1992	CA 2059706 A1 EP 0497515 A1 JP 5130860 A JP 6091816 B US 5194378 A	29-07-1992 05-08-1992 28-05-1993 16-11-1994 16-03-1993
US 4894366 A	16-01-1990	AT 104984 T AU 592067 B2 AU 5059685 A CA 1338491 C CN 85109492 A ,B CN 1056103 A ,C CY 1912 A DE 3587806 D1 DE 3587806 T2 DE 19575026 I2 DK 556285 A EP 0184162 A2 ES 8705038 A1 FI 854731 A ,B, FI 864527 A ,B, GR 852904 A1 HK 18596 A HU 41842 A2 HU 198064 B IE 62865 B1 IL 77222 A IL 92345 A JP 2828091 B2 JP 10067783 A JP 3211891 B2 JP 11343294 A JP 2976966 B2 JP 11012281 A JP 1686568 C JP 3046445 B JP 3072483 A JP 1983737 C JP 3072484 A JP 7020970 B JP 2746134 B2 JP 7224066 A JP 1670486 C JP 3038276 B JP 61148181 A KR 9310704 B1 KR 9310705 B1 KR 9310706 B1 KR 9310707 B1 KR 9310708 B1 LU 90317 A9 MX 9202943 A1	15-05-1994 04-01-1990 12-06-1986 30-07-1996 10-06-1986 13-11-1991 30-11-1985 01-06-1994 25-08-1994 28-03-2002 04-06-1986 11-06-1986 01-07-1987 04-06-1986 07-11-1986 01-04-1986 09-02-1996 28-05-1987 28-07-1989 08-03-1995 10-06-1991 10-06-1991 25-11-1998 10-03-1998 25-09-2001 14-12-1999 10-11-1999 19-01-1999 11-08-1992 16-07-1991 27-03-1991 25-10-1995 27-03-1991 08-03-1995 28-04-1998 22-08-1995 12-06-1992 10-06-1991 05-07-1986 08-11-1993 08-11-1993 08-11-1993 08-11-1993 08-11-1993 11-01-1999 30-06-1992

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/IB2004/003380

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 4894366	A	NL 960023 I1	02-12-1996
		NO 854833 A	04-06-1986
		NO 168372 B	04-11-1991
		NZ 214407 A	28-11-1989
US 5624842	A 29-04-1997	US 6028097 A	22-02-2000
		US 2003170831 A1	11-09-2003
		US 6201005 B1	13-03-2001
		US 2003229115 A1	11-12-2003
		US 2004029908 A1	12-02-2004
		US 6482845 B1	19-11-2002
		US 5830717 A	03-11-1998
		AT 104984 T	15-05-1994
		AU 592067 B2	04-01-1990
		AU 5059685 A	12-06-1986
		CA 1338491 C	30-07-1996
		CN 85109492 A ,B	10-06-1986
		CN 1056103 A ,C	13-11-1991
		CY 1912 A	30-11-1985
		DE 3587806 D1	01-06-1994
		DE 3587806 T2	25-08-1994
		DE 19575026 I2	28-03-2002
		DK 556285 A	04-06-1986
		EP 0184162 A2	11-06-1986
		ES 8705038 A1	01-07-1987
		FI 854731 A ,B,	04-06-1986
		FI 864527 A ,B,	07-11-1986
		GR 852904 A1	01-04-1986
		HK 18596 A	09-02-1996
		HU 41842 A2	28-05-1987
		HU 198064 B	28-07-1989
		IE 62865 B1	08-03-1995
		IL 77222 A	10-06-1991
		IL 92345 A	10-06-1991
		JP 2828091 B2	25-11-1998
		JP 10067783 A	10-03-1998
		JP 3211891 B2	25-09-2001
		JP 11343294 A	14-12-1999
		JP 2976966 B2	10-11-1999
		JP 11012281 A	19-01-1999
		JP 1686568 C	11-08-1992
		JP 3046445 B	16-07-1991
		JP 3072483 A	27-03-1991
		JP 1983737 C	25-10-1995
		JP 3072484 A	27-03-1991
		JP 7020970 B	08-03-1995
		JP 2746134 B2	28-04-1998
		JP 7224066 A	22-08-1995
		JP 1670486 C	12-06-1992
		JP 3038276 B	10-06-1991
		JP 61148181 A	05-07-1986
		KR 9310704 B1	08-11-1993
		KR 9310705 B1	08-11-1993
		KR 9310706 B1	08-11-1993
		KR 9310707 B1	08-11-1993

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